

## Comparison of Insulin ELISA and Iso-Insulin ELISA

The Mercodia Insulin ELISA is specific for human endogenous insulin and do not cross react with the insulin analogs Humalog or Aspart. The Mercodia Iso-insulin do measure insulin analogs. The Mercodia Insulin ELISA and Iso-Insulin ELISA can therefore be used in combination to measure endogenous and administered insulin in the same patient sample.

Mercodia insulin ELISA does not cross react with mouse and rat insulin. Mercodia Iso-Insulin ELISA does cross react with mouse and rat. Both tests cross react with cow, dog, horse, sheep, and pig insulin.

Substance	Specificity Insulin ELISA	Specificity Iso-Insulin ELISA
<b>C-peptide, human</b>	< 0,01 %	< 0,1 %
<b>Proinsulin, human</b>	< 0,01 %	54 %
<b>Proinsulin des (31-32)</b>	< 0.5 %	58 %
<b>Proinsulin split (32-33)</b>	< 0.5 %	56 %
<b>Proinsulin des (64-65)*</b>	98 %	66 %
<b>Proinsulin split (65-66)*</b>	56 %	78 %
<b>Insulin, Lispro (Humalog® Eli Lilly)</b>	< 0.000004 %	112 %
<b>Insulin, Aspart</b>	4.0 %	100 %
<b>Insulin, Detemir</b>	< 0.0000009 %	28 %
<b>Insulin, Glargin</b>	24 %**	58 %
<b>Insulin, Glulisine</b>	< 0.000004 %	123 %
<b>IGF-I, human</b>	< 0.02 %	< 0.02 %
<b>IGF-II, human</b>	< 0.02 %	< 0.02 %

\*Des (64-65) and split (65-66) proinsulin are reported to be least abundant of the proinsulinlike molecules in the circulation (< 1 pM to 5 pM).

\*\* For Mercodia Insulin ELISA, an alternative sequence protocol (see Technical Note 34-0143) may be used that do not detect insulin glargine or glargine metabolites M1 or M2.

Substance	Specificity Insulin ELISA	Specificity Iso-Insulin ELISA
Insulin, rat	0.7 %	71 %
Insulin mouse	0.3 %	49 %
Insulin, sheep	48 %	131 %
Insulin, bovine	31 %	58 %
Insulin, porcine	374 %	306 %